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Reported Fire Losses In The Petroleum Industry For 1984

Statistics Department

AUGUST 1985

American
Petroleum
Institute

REPORTED FIRE LOSSES IN

THE PETROLEUM INDUSTRY - 1984

The experience record of 76 companies reporting to the 54th annual fire loss survey to the American Petroleum Institute indicates a ratio of fire losses to current replacement value in 1984 of 8.2 cents per $100. A current replacement value of $253,305,330,000 was reported for structures, equipment, contents and oil stocks in 1984.

Fire losses of $207,156,319 were reported for the year. The number of fires reported for 1984 totaled 372.

TABLE 1

CURRENT REPLACEMENT VALUES,
FIRE LOSSES, AND FIRE-LOSS RATIOS,
BY CLASSES OF PROPERTY FOR 1984

Classes of Property	Current Replacement Value $	Fire Loss $	Fire Loss Ratio $/$100
Exploration, Prod. & Drilling	96,896,541,000	5,660,921	0.006
Gas Processing	5,690,506,000	21,292,665	0.374
Exp,Prod,Drill, & Gas Not Sep[1]	27,127,887,000	922,000	0.003
Subtotal[2]	129,714,934,000	27,875,586	0.021
Offshore Portion	12,950,269,000	573,000	0.004
Petrochemicals	16,866,049,000	8,040,647	0.048
Refining	56,533,004,000	164,977,186	0.292
Marketing Wholesale	10,850,452,000	754,000	0.007
Marketing Retail	6,324,796,000	858,000	0.014
Marketing Subtotal[3]	17,175,248,000	1,612,000	0.009
Pipeline	26,754,820,000	3,736,900	0.014
All Others	6,261,275,000	914,000	0.015
All Properties	253,305,330,000	207,156,319	0.082

[1]Expl., Prod., Drilling & Gas unable to be separated into Expl., Prod. & Drilling or Gas Processing functions
[2]Total of Expl., Prod., Drilling (Separated & Not Separated), and Gas Processing
[3]Total of all Marketing functions

NOTES: The reporting of fires for 1984 was restricted to those resulting in losses of $2,500 or more.

The Offshore Portion is not included in the totals.

A list of the companies participating in the survey for 1984 appears on page 4.

TABLE 2

NUMBER OF FIRES REPORTED FOR 1984

Classes of Property	Year	Originating on Oil Company Properties: Confined to Property	Originating on Oil Company Properties: Spread to Other Property	Originated Outside But Spread to Oil-Company Property	No. $2.5K to $100K Loss	No. $100K to $1M Loss	No. over $1M Loss	Total Number of Fires
Exploration, Prod. & Drilling	1984	68	0	2	61	8	1	70
Gas Processing	1984	28	0	0	22	5	1	28
Exp,Prod,Drill, & Gas Not Sep[1]	1984	25	0	0	23	2	0	25
Subtotal[2]	1984	121	0	2	106	15	2	123
Offshore Portion	1984	13	0	0	11	2	0	13
Petrochemicals	1984	33	0	0	27	5	1	33
Refining	1984	142	1	1	94	39	11	144
Marketing Wholesale	1984	26	0	0	24	2	0	26
Marketing Retail	1984	22	0	0	20	2	0	22
Mark. Sub.[3]	1984	48	0	0	44	4	0	48
Pipeline	1984	9	2	3	11	2	1	14
All Others	1984	10	0	0	7	3	0	10
All Properties	1984	363	3	6	289	68	15	372

[1]Expl., Prod., Drilling & Gas unable to be separated into Expl., Prod. & Drilling or Gas Processing functions
[2]Total of Expl., Prod., Drilling (Separated & Not Separated), and Gas Processing
[3]Total of all Marketing functions

NOTE: The reporting of fires for 1984 was restricted to those resulting in losses of $2,500 or more.

The Offshore Portion is not included in the totals.

TANK FIRE EXPERIENCE IN 1984

14 companies responded to a questionnaire on fires originating in tanks, resulting in losses of $2,500 or more per fire. Reports on such fires in 1984 are summarized in Table 3. A total of 30 fires in this category were reported for 1984. These fires involved 53 tanks.

Of the tanks affected in 1984, 23 stored crude oil.

By type of tank involved in fires, 28 had cone roofs, and 11 were of the dome roof type.

Of a total of 53 tanks involved, 26 were located on producing properties, 23 at refineries, 1 in pipeline operations, and 1 at bulk plants and terminals.

TABLE 3

TANK FIRE EXPERIENCE IN 1984 and 1983

Fires Originating in Tanks Resulting in Losses of $2,500 or More

Number of Tanks Involved in Fires

Structural Type of Tank

	Floating Roof																			
	Pantograph Seal		Tube Seal		Internal		Total		Cone Roof		Dome Roof		Sphere & Spheroid		Horozontal		Other Types		Total	
	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983
By Class of Product:																				
Crude Oil	0	0	0	0	1	2	1	2	13	22	7	12	0	0	0	1	2	5	23	42
Products:																				
Under 100 F Flash	2	7	3	0	2	1	7	8	6	2	4	0	0	0	0	0	0	2	17	12
100-200 F Flash	3	0	0	0	0	0	3	0	4	2	0	0	0	0	0	0	0	0	7	2
Over 200 F Flash	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	1	0	3	2
LNG/LPG	0	0	0	0	0	0	0	0	3	4	0	1	0	0	0	0	0	0	3	5
Total	5	7	3	0	3	3	11	10	28	32	11	13	0	0	0	1	3	7	53	63
By Location:																				
Producing Properties	0	0	0	0	0	0	0	0	13	23	11	12	0	0	0	1	2	6	26	42
Pipeline Operations	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1
Refineries	5	3	3	0	2	3	10	6	13	6	0	1	0	0	0	0	0	0	23	13
Bulk Plants & Term.	0	4	0	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0	1	4
Other Locations	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	1	0	2	2
Total	5	7	3	0	3	3	11	10	28	32	11	13	0	0	0	1	3	7	53	63

	1984	1983
Total Number of Fires Involving Tanks (regardless of number of tanks involved)	30	51

REPORTED FIRE LOSSES IN THE PETROLEUM INDUSTRY

COMPANIES PARTICIPATING IN THE 1984 SURVEY

Alabama-Tennessee Natural Gas Company
American Petrofina Inc.
Amoco Oil Corp.
Anchor Gasoline Corp.
Ashland Oil, Inc.
Atlantic Richfield Company
BP North America Petroleum Inc.
Breckenridge Gasoline Company
Buckeye Pipe Line Company
Calcasieu Refining Company
CELERON Oil & Gas Company
Champlin Petroleum Company
Chevron U.S.A., Inc.
Cibro Petroleum Products, Inc.
Cities Service Oil & Gas Corp.
Coastal Corp., The
COC Corp. T/A Coastal Oil Company
Colonial Pipeline Company
Conoco Inc.
Cook Inlet Pipe Line Company
E.E. Fogelson
El Paso Products Company
Explorer Pipeline Company
Exxon Chemical Americas
Exxon Company, U.S.A.
Gulf Oil Corp.
Hellman Properties
Hewit & Dougherty
Hudson Refining Company, Inc.
Hunt Oil Company
Husky RMT Properties Inc.
Kaneb Pipe Line Company
Kentucky Hydrocarbon Company
Ladd Petroleum Corp.
Lakehead Pipe Line Company, Inc.
Laurel Pipe Line Company
Lone Star Gas Company
Macmillan Petroleum, Inc.
MAPCO Petroleum Inc.
Marathon Oil Company
Meenan Oil Company, Inc.
MGPC
Mitchell Energy and Development Corp.
Mobil Oil Corp.
Mobil Research and Development Corp.
Murphy Oil U.S.A., Inc.
Northern Gas Products Company
Ohio Oil Gathering Corp.
Pacific Refining Company
Parade Company, The
Petrolane Lomita Gasoline Company
Plantation Pipe Line Company
Portal Pipe Line Company
Portland Pipe Line Corp.
Producers Gas Equities Inc.
Rocket Oil Company
Sinclair Oil Corp.
Somerset Refinery Inc., The
Southern Pacific Pipe Lines Inc.
Southland Oil Company
Sun Company, Inc.
Tensas Processing Corp.
Texaco Inc.
Texas Eastern Transmission Corp.
Texas Gas Transmission Corp.
Texas Oil & Chemical Company
Tosco Corp.
Total Petroleum (North America) Ltd.
Union Gas System, Inc.
Union Oil Company of California
United Refining Company
Valero Energy Corp.
West Shore Pipe Line Company
Williams Pipe Line Company
Wyco Pipe Line Company
Young Refining Corp.